

### Abstract of the Disclosure

A map area indicated by map data is partitioned into a plurality of map units respectively having a squared area, and a route from a current position of a vehicle to a destination is determined according to the map data read from a map recording medium mounted on a disk unit. The route is partitioned into a plurality of route links respectively included in one map unit. In cases where each route link is placed in a general road section, a first route link map unit including the route link and eight map units adjacent to the first route link map unit are specified. Also, in cases where each route link is placed in a throughway section, only a second route link map unit including the route link is specified. Map data of each first route link map unit, map data of the eight map units adjacent to the first route link map units and map data of the second route link map units are stored in a data buffer in a pre-reading process, and a navigation function is performed according to the map data of the data buffer. Therefore, because a volume of the map data stored in the data buffer is reduced, an additional function other than the navigation function performable by using the disk unit can be sufficiently performed.